

Long-term Sustainability of Sustainable Practice: From Green Fad to Green Facts

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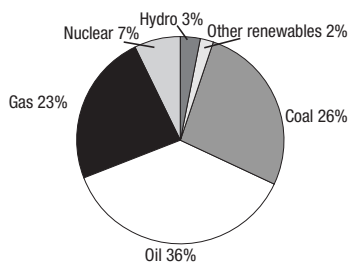
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Across the globe a fundamental movement towards Sustainability is changing the way businesses, organizations and governments operate. Sustainability is becoming the buzz word associated with an organization's achievement of superior financial results while minimizing the impact on the environment and providing for the greater needs of society. Whether achieved through market demand or regulatory pressures, Sustainability's growing track record of creating superior value and growth assures its widespread acceptance for future generations to come.

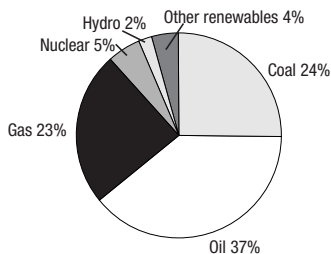
The year 2003 was a watershed period for global economic, environmental and social issues crises. Even before the Iraq war, the U.S. was spending an estimated \$100 billion on defense for the oil-rich Middle East, but the escalation of hostilities and the resulting tragic loss of human life pointed out the tremendous cost of protecting national security and the American way of life.

In addition, corporations face increasing demands from stakeholders – investors, customers, employees, suppliers, society – in areas of corporate governance and business ethics, environmental efficiency, climate change, fair labor practices, workplace health and safety, human rights, societal impact and reporting transparency. Investors, regulators, media and pressure groups are scrutinizing corporate behavior closely.

World Primary Energy Demand 2000



World Primary Energy Demand 2030 (reference scenario)



World energy demand will grow by 66% from 2000 to 2030. Yet, the energy mix is projected to remain nearly unchanged.

Source: International Energy Agency World Energy Outlook, 2003

Closer to home, the August 14, 2003 Northeast power blackout demonstrated our society's economic dependence upon and vulnerability to energy supply and delivery. Losses from the blackout topped \$6 billion, and estimates of total losses from outages and power quality disturbances range from \$25 to \$180 billion annually.

Confronting these issues individually is a daunting task. But a growing movement towards Sustainability is providing a framework for simultaneously addressing a multitude of challenges. Several Sustainability initiatives are advancing, including the growing acceptance of:

- Transparent corporate governance
- Socially responsible investing
- Better buildings through green building design, technologies and practices
- Global, federal and local government environmental mandates
- Investment in and consumer demand for alternative-fueled vehicles

The evidence of growing interest in Sustainability is impressive. A January 2003 survey of 1,000 CEOs from 43 countries by PricewaterhouseCoopers, the largest international accounting firm, indicated that 79 percent of these CEOs believe that Sustainability is vital to the profitability of any company, an increase from 69 percent the previous year. Most CEOs – 71 percent – said they would sacrifice short-term profitability in exchange for long-term shareholder value when implementing a Sustainability program. Additionally, 67 percent disagreed that Sustainability is largely a public relations issue. Another PWC survey indicated more than half of U.S. multinational corporations would increase spending for Sustainability in 2004.

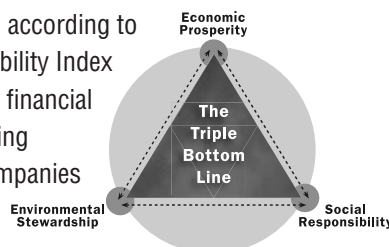
The reason for increased interest is clear, according to Robert Ridge, Vice President – Health, Safety and Environment, ConocoPhillips. In a February 2003 speech, he noted, “By the ongoing pursuit of sustainable growth, we are going to be constantly making ourselves safer, more efficient, more technologically advanced and more productive. We will continuously be doing more with less. In the process, we will not only be making ourselves more environmentally benign, we will be making ourselves more profitable and investment-worthy. In short, sustainable development is just good business.”

It is difficult to characterize all the issues that Sustainability addresses because they are so numerous, interwoven, and in some cases complex. In this paper, we will provide a general definition of Sustainability along with evidence that sustainable practices are profitable because they can reduce risk, make business and consumers more efficient and productive, and advance them technologically while reducing environmental and social concerns.

Sustainability Background

The most popular definition of Sustainability can be traced to the 1983 United Nations Commission on Environment and Development, chaired by Norwegian Prime Minister Gro Harlem Brundtland. Its report, “Our Common Future,” defines sustainable developments as those that “meet present needs without compromising the ability of future generations to meet their needs.” In the twenty years since the commission met, the definition of Sustainability has altered slightly, depending on the audience. In general, it is the idea of progress that respects the importance of the “triple bottom line,” giving value to the economic impact of social and environmental programs.

The concept of Sustainability certainly is taking shape in the business world. The definition of corporate responsibility, according to the Dow Jones Sustainability Index (DJSI), which tracks the financial performance of the leading Sustainability-driven companies worldwide, is “a business approach that creates long-term shareholder value by embracing opportunities and managing risks deriving from economic, environmental and social developments. Corporate Sustainability leaders achieve long-term shareholder value by gearing their strate-



gies and management to harness the market’s potential for Sustainability products and services while at the same time successfully reducing and avoiding Sustainability costs and risks. As the importance of these trends increases, a growing number of investors integrate economic, environmental and social criteria into their stock analysis and use Sustainability as a proxy.”

Those ultimate positive results – the triple bottom line of enhanced business, environment and society – are what make Sustainability not just a fad but a sound corporate governance practice that has far-reaching consequences for all. And as experts in several industries are learning, those companies, organizations and governments that integrate Sustainability into their values and vision will reap the benefits; those that ignore it will have a difficult time sustaining their own future.

Transparent Corporate Governance and Socially Responsible Investing

Consumer advocates argue that smart businesses should be willing to open their doors and encourage transparency, and according to an August 2003 poll for *American Demographics* magazine, 70 percent of Americans say they are more likely to buy a product if the company that makes it is known to implement environmentally friendly practices in its operations. “Companies that grasp the important linkages between sustainable development and shareholder value will be able to shift their sustainable development initiatives from a stakeholder-driven approach to a value-driven approach, in which sustainable development is one of many contributors to overall value,” according to analyst Joseph Fiksel in *Corporate Strategy Today*.

Business executives are taking note. The June 2003 PricewaterhouseCoopers Management Barometer, a quarterly survey of top executives in 103 Europe-based and 150 U.S.-based large multinational businesses noted, “Sustainability...is receiving a high level of attention from executives of multinational companies on both sides of the Atlantic, with those based in Europe and the U.S. emphasizing differing aspects of the concept to suit their objectives and culture.”

As the impact of Sustainability trends on business becomes evident, the integration of economic, environmental and social criteria is affecting mainstream investing. The Social Investment Forum’s 2003 *Report on Socially*

Responsible Investing Trends in the United States indicates a total of \$2.16 trillion in assets was identified in professionally managed portfolios using one or more of the three core socially responsible investing strategies – screening, shareholder advocacy, and community investing. More than one out of every nine dollars under professional management in the U.S. is involved in socially responsible investing (SRI). From 1995 to 2003, since the inception of the Forum’s publication of biennial *Trends Reports*, assets involved in social investing, through screening of retail and institutional funds, shareholder advocacy, and community investing, have grown 40 percent faster than all professionally managed investment assets in the United States. Investment portfolios involved in SRI grew by more than 240 percent from 1995 to 2003, compared with overall 174 percent growth.

Two other Sustainability measures, the Dow Jones Sustainability Index (DJSI) and the *Financial Times* Stock Exchange FTSE4Good Index generally have performed in line with or have outperformed the broader market averages. “Since we launched the DJSI family in 1999, there has been a significant shift in market perception of Sustainability investments. A growing number of private and institutional investors are adapting economic, environmental and social criteria to reflect the impact of Sustainability issues on long-term shareholder value. As a result, we are now seeing this investment style stepping out of its niche and making its way into mainstream asset management and equity research. This is a very encouraging development for this market segment which we will continue to support with objective and professional benchmarks,” says John Prestbo, editor, Dow Jones Indexes.

Some analysts believe that as regulations become institutionalized and investors and consumers become more aware of companies’ practices, governance risks increasingly will be considered in investment risks. “We believe this market oriented solution positively complements top down efforts by legislators, regulators and exchanges to influence corporate governance practices through the introduction of new laws, regulations and listing rules,” says George Dallas, managing director, governance services, Standard & Poor.

Another reason why Sustainability is advancing in the corporate world is through shareholder advocates – people and organizations that are focused on disclosure of company social and environmental activities beyond that required by

law. According to the Social Investment Forum, “Between 2001 and 2003, shareholder advocacy activity increased by 15 percent, growing from 269 resolutions filed in 2001 to 310 in 2003. Likewise the average percentage of votes received on these resolutions has increased from 8.7 percent in 2001 to 11.4 percent in 2003.”

“It is increasingly clear that investors believe that well-governed, socially responsible companies are better positioned to deliver long-term, sustainable value to their shareholders,” said Barbara Krumsiek, CEO of Calvert Group, a socially responsible mutual fund. And according to the accounting firm KPMG, 36 percent of the top one hundred U.S. companies now publish annual Sustainability reports.

Ultimately, however, “the real test of success for today’s sustainable development visionaries will be that ‘Sustainability’ as a separate concept fades away, and people across the enterprise learn to weave sustainable development principles naturally into their strategic and tactical thinking,” according to analyst Joseph Fiksel.

Better Buildings Through Green Building Design, Technologies And Practices

Building owners are taking the lead in integrating Sustainability into practices, and with good reason — buildings are one of the biggest energy users. The average American spends more than 90 percent of his or her time indoors, according to the American College of Allergy, Asthma & Immunology. And with wholesale natural gas prices expected to be nine percent higher in 2004 than in 2003, the financial impact is tremendous. According to EPA and DOE, American buildings:

- Use 40 percent of total energy use, resulting in air pollution, acid rain, river damming, nuclear waste, and risk of global warming.
- Use 16 percent of total water withdrawals, resulting in water pollution, and competition with agriculture and ecosystems for water.
- Create 136 million tons of construction and demolition waste, resulting in landfill problems, such as leaching of heavy metals and water pollution.
- Have poor air quality in 30 percent of new and renovated buildings, resulting in a higher incidence of sickness and related lost productivity in tens of billions of dollars annually.

- Contribute 30 percent of total U.S. greenhouse gas emissions.

Many companies and organizations are now looking at how sustainable, or “green,” buildings are providing healthier workplaces that not only save energy and money but also improve morale and productivity and reduce absenteeism. According to the United States Green Building Council (USGBC), a green building is a structure that is designed, built, renovated, operated, or reused in an ecological and resource-efficient manner. The USGBC has developed the Leadership in Energy and Environmental Design, or LEED™ rating. LEED insures that green buildings meet certain objectives, such as protecting occupant health; improving employee productivity; using energy, water, and other resources more efficiently; and reducing the overall impact to the environment, often without additional cost to the building owner.

A study by the Lawrence Berkeley National Laboratory indicates that buildings with good overall environmental quality can reduce the rate of respiratory disease, allergy, asthma, sick building symptoms, and enhance worker performance. The potential financial benefits of improving indoor environments are eight to 14 times the cost investment. In schools, evidence suggests that poor indoor environmental quality can influence the performance and attendance of students, primarily through health effects from indoor pollutants.

Another study from the Rocky Mountain Institute shows that productivity gains of 6 to 16 percent, including decreased absenteeism and improved quality of work, have been reported from energy-efficient design. Since companies spend an average of 70 times as much on employee salaries as on energy, an increase of just one percent in productivity can result in savings that exceed the company’s entire energy bill.

Vastly improved technology is available to make facilities more sustainable. From highly efficient lights and windows to the building automation systems that run them, a comprehensive approach to planning and implementing building improvements encourages even greater efficiencies. In addition, development of new technologies, including low-cost plastic photovoltaic and distributed energy, provide even more incentive for the future.

Minimal increases in upfront costs of about two percent to support green design would, on average, result in life cycle

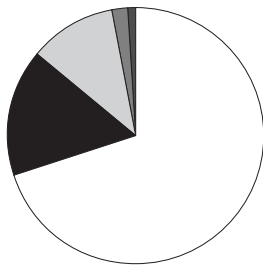
savings of 20 percent of total construction costs – more than 10 times the initial investment, according to an October 2003 report to California’s Sustainable Building Task Force. And the financial benefits of green design are between \$50 and \$70 per square foot in a LEED building, more than 10 times the additional cost associated with building green. The financial benefits were found to be in lower energy, waste and water costs, lower environmental and emissions costs, and lower operational and maintenance costs and increased productivity and health.

For instance, the National Geographic Society Headquarters Complex in Washington DC has three buildings totaling 840,000 square feet. These buildings are classified as class A commercial office buildings, but also contain a TV studio, photography labs and process areas, archives, a health facility and cafeteria/food service facility. By installing high-efficiency equipment and undertaking other technologies and practices in the LEED process, the Society increased its property market value \$4 for every \$1 invested in the upgrade project, while lowering energy costs and waste consumption and improving its credit rating.

Green building and financial leaders are working with elected officials to introduce mortgage-backed securities (MBS) based on green building standards. The projected economic stimulus by green MBS, assuming that 70 percent of new construction is green, would mean \$36 billion per year in energy savings, \$6.7 billion in construction waste reduction, \$20 billion in water pollution savings, \$24 billion in energy savings from appliances and lighting. “In several years we could surpass the United State’s Kyoto Protocol limits on CO₂ emissions without ever signing the pact,” says Michael Italiano, co-founder of the U.S. Green Building Council.

The growth of LEED-rated green buildings is dramatic; currently at four percent of US commercial/institutional new construction and renovation markets, the green building growth rate is about 150 percent per year. As of fall, 2003, an estimated \$15 billion worth of green buildings currently were in design or under construction in the U.S., representing 12-15% of total public construction and about 2% of private-sector construction, according to the California report. Although that \$15 billion represents less than 5% of the total \$315 billion U.S. annual construction for commercial, industrial, and institutional buildings, the category is growing at the rate of about 75% a year.

**Green Building Financial Benefits
(LEED and Silver Certified)**
Source: Capitol E



- Productivity & Health 70%
- Reduced O&M 16%
- ▒ Energy 11%
- Emissions 2%
- Water 1%
- Waste - less than 1%

State, Federal and Global Government Environmental Mandates

While the expansion of green buildings is depending both on market acceptance and government mandates or incentives, taxpayers and many businesses already are reaping the triple bottom line value of its implementation.

State/Local Mandates

According to an article in an October 2003 *Christian Science Monitor*, “As nations continue to argue over the Kyoto agreement and other multinational approaches, and as Congress considers an energy bill that would expand fossil-fuel production, state governments are taking the lead in reducing the greenhouse gases that seem to be sending temperatures upward.”

A report from the Pew Center for Climate Change notes that states are in the forefront in taking a hard look at the environmental effects of energy use, saying it is “entirely consistent with the long-standing tradition in American governance whereby states serve as laboratories for subsequent federal policy.” For instance:

- Fourteen states, including oil-rich Texas, now require utilities to generate part of their power from renewable sources.
- New York State has created a regional market in which power plants can buy and sell carbon-dioxide credits. Several states in the region have told the governor they’re interested in collaborating on emission reductions across the region.
- West Coast states recently announced a joint strategy to reduce global warming. The effort includes:
 - Using their combined purchasing power to buy fuel-efficient vehicles for official use.

- Developing uniform appliance-efficiency standards.
- Collaborating to measure and report greenhouse-gas emissions.
- Reducing the use of diesel generators on ships in California, Oregon, and Washington State ports.
- California is calling on CalPERS and CalSTRS — the nation’s largest and third largest public pension funds, with combined assets of \$250 billion — to demand environmental accountability and disclosure, target Private Investment in Environmental Technologies, invest in Stocks of Environmentally Responsible Companies and audit its real estate portfolios to determine whether the investments are maximizing their opportunities to use clean energy, energy efficiency and green building standards.

In the United States, there are 50 state governments and approximately 3,043 county, 19,279 city and 16,656 town governments. Together, they spend an estimated \$12 billion per year on energy bills and another \$50-70 billion a year on energy-related products. Several states and localities now either require that government office buildings meet green building requirements or give tax credit for companies that build green.

It is believed that government mandates will increase information about sustainable products and practices, which will lead to marketplace acceptance and lower prices. For instance, when the State of Wisconsin purchased thousands of energy efficient lighting components, it actually reduced the national price of the ballasts.

Federal Mandates

The U.S. federal government owns nearly 500,000 buildings covering 3.1 billion square feet, accounting for 0.4 percent of the nation’s energy usage, and emitting about 2 percent of all U.S. building-related greenhouse gases. It also purchases \$200 billion annually in goods and services. Recent regulations – some specifically spelled out for federal buildings, some with broader market implications – suggest a comprehensive sustainable approach. For example:

- Comprehensive procurement guidelines give preference to energy efficient, environmentally effective, and bio-based products.

- Mandates require federal buildings to reduce their energy use by 35 percent by 2010 (compared to 1985), and apply sustainable design principles to the siting, design, and construction of new facilities. Many federal agencies and departments now use LEED or a similar tool for their new projects.

As of September 2003, through Sustainability policies, federal buildings have reduced their energy intensity by 23 percent and cut their carbon emissions by 2.8 million metric tons (equated to removing the emissions of 2.1 million vehicles from the road in one year), since 1985. But new federal mandates are giving private companies reasons to consider their Sustainability practices. Passage of the Sarbanes-Oxley (SOX) Act of 2002 was meant to “protect investors by improving the accuracy and reliability of corporate disclosures.” Corporations filing the report find the importance of listing not only environmental information but also corporate governance practices to avoid civil and criminal sanctions for non-compliance. “Sarbanes-Oxley has stood the formerly accepted practices of environmental accounting on their heads. Public and, to an extent, even private companies are now being held to a much different standard than before SOX. And there is considerable pressure from environmental and other interest groups for the SEC to raise the bar even higher,” according to environmental consultants at The Payne Firm.

Finally, pressure continues to come from environmental, labor and consumer groups for a strong national energy bill that emphasizes sustainable practices. Concerns about imported oil, national security and climate change will continue to make Sustainability a political issue.

Global Mandates

Beyond the shores of the United States, many other countries are both encouraging and demanding more social, economic and environmental information. As of November 2003, 84 countries had signed and 120 countries had ratified implementation of the Kyoto Protocol to the United Nations Framework Convention On Climate Change, which commits countries to cut their emissions of greenhouse gases between 2008 and 2012 to below 1990 levels.

Although the U.S. has chosen not to ratify the treaty because of concerns about its potential for compromising U.S. global competitiveness, its price of implementation and the resistance of implementation by developing countries, the

European Parliament is moving forward, requiring companies and organizations to change their practices to meet goals. Britain especially is ready to move well beyond the international agreements made at Kyoto. In addition, as the European Union expands, the new countries will be required to meet sustainable development targets. And in early 2004, China established its own Business Council for Sustainable Development, which will “take a practical approach to developing the concept of sustainable development in business in China, looking to develop and support programs that will make a difference to the way business is managed.”

Corporate transparency also has a stronghold in several countries as they both encourage and demand more social, economic and environmental information. According to one review of corporate governance, “The US has Sarbanes-Oxley and SEC Regulations, a breach of which may lead to fines and/or jail; Europe has ‘codes of best practice’ (for example, the Cromme Code in Germany and the Vienot Code and the Bouton Report in France).” Additionally, a review of UK company law is currently taking place, which will lead to a requirement also to report on material business risks, including governance and responsibility risks.

Investment In and Consumer Demand For Alternative-Fueled Vehicles

Both the federal government and private industry have invested significantly in the development of alternative fueled vehicles. In January 2003, President George W. Bush announced the \$1.2 billion FreedomCAR and Fuel Initiative “to reverse America’s growing dependence on foreign oil by developing the technology needed for commercially viable hydrogen-powered fuel cells – a way to power cars, trucks, homes and businesses that produces no pollution and no greenhouse gases.”

The Initiative expects to invest \$720 million in new funding over the next five years to develop the technologies and infrastructure needed to produce, store, and distribute hydrogen for use in fuel cell vehicles and electricity generation. Private industry already is moving forward. DaimlerChrysler says it will have on-road real-world experience with more than 100 fuel cell vehicles by the end of 2004. General Motors wants to have affordable fuel-cell cars on the market within the next few years, and Royal Dutch/Shell plans to put \$500 million into hydrogen and renewable fuels by the end of this decade.

While some are concerned about the cost and viability of hydrogen-powered vehicles, others are turning to gas-electric hybrids. Toyota's hybrid Prius was named the 2004 North American Car of the Year, and to meet the increased demand, the Japanese carmaker said it would boost 2004 production from 76,000 to 130,000 cars. Currently, according to the J.D. Power and Associates 2003 Hybrid Electric Vehicle OutlookSM U.S. consumers are expected to purchase approximately 350,000 hybrid vehicles annually by 2008. Overall, their share of U.S. car market sales, though small, is steadily increasing.

- California, New Jersey, Vermont, Massachusetts and Maine are implementing tougher auto-emissions standards than the federal government requires.
- Several states are considering requiring dealers to offer gas-electric hybrid and zero-emission vehicles.
- New York City is using 325 diesel-electric hybrid buses to replace diesel buses. The change is expected to improve fuel efficiency by 70 percent and improve air quality by 90 percent.
- Virginia and Arizona provide carpool lane privileges to hybrid gas-electric cars, even for solo drivers.

Once again, consumer demand and government mandates are both playing a role in the advancement of sustainable technology.

Future Sustainability

The evidence of growing interest in Sustainability is impressive. In the July 2003 *Corporate Strategy Today* article, Joseph Fiksel explains the most common reasons cited for sustainable development (SD) include enhanced reputation, competitive advantage, and cost savings. He says there are several factors that underlie this growing business interest in sustainable development:

- SD not only provides direct financial benefits through greater efficiency, but also enhances several intangible factors that are known to influence shareholder value including- reputation, brand equity, strategic relationships, human capital, and innovation. Some 50 to 90 percent of a firm's market value can be attributed to intangibles like EHS.

- Top executives in the post-Enron era are increasingly stressing ethical obligations and accountability, including social responsibility, transparency, and constructive engagement with external stakeholders.
- Competitive pressures are mounting as more leading companies in every industry adopt progressive codes of conduct (e.g., Coalition for Environmentally Responsible Economies (CERES) principles), openly report on their SD progress, and demand that their suppliers adhere to the same practices.
- Emerging regulatory initiatives embrace principles such as climate stabilization and extended producer responsibility, which broaden the boundaries of corporate accountability and raise public expectations regarding company practices.
- The financial community has begun to recognize that attention to sustainable development is an indicator of overall superior management, as exemplified by the increasing interest in the Dow Jones Sustainability Group Index.

As technology develops, as solid evidence grows about its tangible and intangible benefits, and as successful business and government leaders share their best practices, Sustainability is emerging as more than just a fad. Public and private entities alike are discovering that economic growth is a benefit of environmental and social progress. *The New York Times* reports, "the companies moving most aggressively in this area are quick to say that they are being driven not by altruism, but by an assessment that investments in emission reductions can end up paying for themselves in reduced operating costs. The changes are also seen as a way to make the companies more profitable."

The issues that businesses and government face will likely intensify in the future as society grows more complex. But through increasingly effective technology and the comprehensive approach suggested with sustainable development, a profitable economy, sound environment and positive social outcomes can be achieved.

Sources Consulted

Browning, William D. and Romm, Joseph. *Greening the Building and the Bottom Line: Increasing Productivity Through Energy-Efficient Design*. Rocky Mountain Institute (1994).

CalPERS – <http://www.treasurer.ca.gov/news/greenwave.htm>

“California’s Hydrogen ‘Bomb.’” *EV World*. (January 21, 2004).

Dow Jones Sustainability Index – <http://www.Sustainability-index.com>

Consortium for Energy Efficiency –
<http://www.cee1.org/resrc/facts/purch-fx.php3>

Fairley, Peter. “Solar on the Cheap.” *Technology Review*. (January-February 2002).

Feder, Barnaby J. “Some Businesses Take Initiative to Voluntarily Reduce Emissions.” *The New York Times*. (December 1, 2003).

Fiksel, Joseph. “Revealing the Value of Sustainable Development,” *Corporate Strategy Today*, Issue 7/8 (2003).

Fisk, William and Rosenfeld, Arthur. “Improved Productivity and Health from Better Indoor Environments,” *Indoor Air*. Volume 7, issue 3. (1997).

Glotfelty, Jimmy. Testimony before the U. S. House Subcommittee on Energy, Committee on Science, 102nd Congress. (September 25, 2003).

Green Buildings – <http://www.usgbc.org>

“Green Economics.” *Building Operating Management*. (October 2003)
http://mts.sustainableproducts.com/mts_mbs.pdf.

Heath, Garvin A. and Mendell, Mark J. “Do Indoor Environments in Schools Influence Student Performance? A Review of the Literature.” Lawrence Berkeley National Laboratory. (October 2003).

History of Sustainability – <http://www.brundtlandnet.com>

Howard, John L., Jr. “The Federal Commitment to Green Building: Experiences and Expectations.” (September 2003).
http://www.ofee.gov/sb/fgb_report.html

“Investors Increasingly Concerned with Corporate Ethics.” *LOHAS Journal*. (December 13, 2003). http://www.lohasjournal.com/app/cda/nbp_cda.php?command=Article&articleId=4488

“J.D. Power and Associates Reports: Anticipated Higher Costs for Hybrid Electric Vehicles Are Lowering Sales Expectations.” (October 27, 2003)
<http://www.jdpa.com/news/releases/pressrelease.asp?ID=2003135>

Kats, Greg. “The Costs and Financial Benefits of Green Buildings: A Report to California’s Sustainable Building Task Force.” (October 2003).

Knickerbocker, Brad. “States take the lead on global warming.” *Christian Science Monitor*. (October 10, 2003).
<http://www.csmonitor.com/2003/1010/p01s03-usgn.html>

“Leadership, Responsibility and Growth in Uncertain Times.” PricewaterhouseCoopers. (March, 2003). <http://www.pwc.com/gx/eng/ins-sol/survey-rep/ceo6/index.html>

Low, Jonathan and Kalafut, Pamela Cohen. *Invisible Advantage*. Perseus Press, Cambridge, MA, (2002).

PricewaterhouseCoopers. “Management Barometer.” (June 2003). <http://www.barometersurveys.com>

Rabe, Barry G. “Greenhouse & Statehouse: The Evolving State Government Role in Climate Change.” Pew Center for Climate Change. (November 2002)

Ridge, Robert. "Financial Markets And Environmental Strategies: What Counts?" speech at World Business Council for Sustainable Development meeting. Houston, Texas. (February 12, 2003).

Roodman, David Malin and Lenssen, Nicholas. "A Building Revolution: How Ecology and Health Concerns Are Transforming Construction." Worldwatch Institute Paper #124. (March 1995).

"Roundtable Two: Financial Institution Case Studies in Project and Portfolio Risk Management." Discussion, United Nations Environmental Programme Financial Initiative. (January 10, 2003).

Sarbanes-Oxley – <http://www.sarbanes-oxley-forum.com>

"Sarbanes-Oxley Act of 2002, A New Challenge for EHS Managers." The Payne Firm, Inc. (October 2003). <http://www.paynefirm.com/html/enviro-edge/EE03-116.html>

Social Investment Forum. "2003 Report on Socially Responsible Investing Trends in the United States." http://216.239.41.104/search?q=cache:NHm0QwRJgs4J:www.socialinvest.org/areas/research/trends/sri_trends_report_2003.pdf+2003+Report+on+Socially+Responsible+Investing&hl=en&ie=UTF-8

"Sustainable development gets a boost in China." Beijing Portal.com. (January 17, 2004) <http://english.qianlong.com/7838/2004/01/17/1380@1831987.htm>

Sustainable investing – <http://www.ftse.com/ftse4good/index.jsp>

"The President's FreedomCAR and Fuel Initiative: A Clean and Secure Energy Future." U. S. Department of Energy news release. (January 28, 2003) <http://www.eere.energy.gov/hydrogenfuel/>

"The Whys Behind the Buys." *American Demographics*. (July/August 2003).

"Trust Us: The Global Reporters 2002 Survey of Corporate Sustainability Reporting." <http://www.sustainability.com/publications/engaging/trust-us.asp>

UK Corporate Governance – <http://www.osborneclarke.com/publications/publications.asp>

